

INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

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COUNTRY Rumania

REPORT

SUBJECT The Power Station Construction and Installation Trust in Bucharest

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SOURCE EVALUATIONS ARE DEFINITIVE. APPRAISAL OF CONTENT IS TENTATIVE.

1. The Power Station Construction and Installation Trust (Trustul Constructiei si Montaje Energetice - TCME) in Bucharest constructs power and transformer stations and installs their equipment. The head office of the trust is located in the former building of the now defunct Ministry of Electric Power (Ministerul Energiei Electrice). While the entrance to the latter was at 23-25 Bulevardul General Magheru, the entrance to the trust offices is on Strada Mendeliev (number unknown), a street running parallel to Bulevardul General Magheru.

2. The Power Station Construction Trust (Trustul Energo-Constructie) had been established in 1950 at the time the plan for the electrification of Rumania was put into operation. It belonged, at that time, to the Ministry of Electric Power. When that ministry was abolished in about 1957, the trust was transferred to the Department of Electric Power at the Ministry of Heavy Industry (Ministerul Industriiei Grele Departamentul Energiei Electrice). In 1958, the Power Station Construction Trust was merged with the Electrical Installation Trust (Trustul Electro-Montaj), since which time it has been designated the Power Station Construction and Installation Trust, TCME.

3. The management of the trust consists of the director general, the technical manager, the administrative manager, and the chief engineer. The trust has the following sections:

- a. Planning (Serviciul de Plan).
- b. Supplies (Serviciul Aprovizionari).
- c. Accountancy (Serviciul Contabilitatii).
- d. Personnel (Serviciul Cadelor).
- e. Technical Affairs (Serviciul Technic), which is responsible for the calculating of business costs.

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- f. Production (Serviciul Productiei).
 - g. Internal Control (Serviciul Control Intern), which examines the trust investments and projects with regard to their effect on the national economy.
 - h. Labor and Wages (Serviciul Munca si Salarii).
4. To carry out the tasks assigned to it, TCME has established various executive groups. The management of an executive group consists of a chief engineer, a chief accountant, and an assistant chief engineer. The groups were called Complexuri de Santiere until 1958, after which time they were designated Grupuri de Santiere (Santier - building site). Administratively, the executive group consists of the following departments (servicii) and sections (sectii):
- a. Technical Department (Serviciul Technic), which also includes the Production Section (Sectia Productiei).
 - b. Supply Department (Serviciul Aprovizionarii), which deals with the supply, storage, and transport of materials required for the construction projects.
 - c. Accounts Department (Serviciul Contabilitatii), which consists of an accounts section (sectia contabilitate) and a financial section (sectia financiara).
 - d. Planning Section (Sectia Planificare).
 - e. Personnel Section (Sectia Cadre si Personal).
 - f. Labor and Wages Section (Sectia Munca si Salarii).
 - g. Section for Ration Cards (Sectia de Cartele), which distributes food ration coupons among the workers and pays them the monthly allowance of 100 lei for each child below 14 years of age. In the fall of 1958 and in early 1959, there was a shortage of bread, and workers received bread rations in exchange for coupons distributed by the section, 350 grams of bread as a standard rate and 500 grams for those doing heavy physical work.
5. In 1952, the Grupul de Santiere-Petrosani for power and transformer stations was established in the Jiu River Valley. The group was actually stationed in the village of Paroseni, on the Lupeni-Petrosani road between Vulcan and Lupeni. The two towns are located at a distance of 5-6 kilometers from each other, and almost the entire area is taken up by the group and the thermal power station under construction. The group was given a false name because of the secrecy of the projects carried out in Paroseni.
6. Between 1952 and 1955, the Grupul de Santiere-Petrosani employed 2,000 workers. The number employed has since been reduced to 1,000. About 90 percent of the unskilled laborers are draftees serving in the labor battalions (DGSM - Directiunea Generala a Serviciului Muncii). The group usually works in one shift: from 0700 to 1500 in the summer and from 0800 to 1600 in the winter. When large quantities of concrete are being cast, however, operation is in two or three shifts.

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7. During 1957-1958, the group erected three stations for transforming 35 kv and 110 kv high tension current to 6 kv current. The stations are situated in the following locations:
 - a. In Lupeni, near the football field and the Coal Cleaning and Sorting Plant (Preparatia Lupeni).
 - b. In the village of Petrila, near the Coal Cleaning and Sorting Plant (Preparatia Petrila).
 - c. In Barbatesti, 30-40 kilometers south of Tirgu-Jiu, where a new industrial center is being developed for the exploitation of coal and petroleum.
8. The group's principal project is the construction of a thermal power station at the group's location (between Vulcan and Lupeni). The project was begun in 1952, was put into operation in 1956, and is due for completion in 1961. The station is situated south of the Jiu de Vest River and the Petrosani-Lupeni railroad line and north of the Petrosani-Lupeni highway. The area of the station is to be enclosed by a fence two meters high, the base and top of which will be cast concrete connected by a concrete lattice and topped by three strands of barbed wire. In February 1959, only the part of the fence facing the Petrosani-Lupeni highway had been completed; there was still free access to the other sides.
9. The station area is served by railroad spurs and a special railroad station. The turbines of the station were supplied by the Kirov Plant in Leningrad; the other equipment at the station was also supplied by the USSR. Five or six Soviet experts live in Petrosani and supervise the construction and installation of the machinery (no further details on equipment).
10. The station consists of the following installations:
 - a. The main building, which is about 67 meters wide, 90 meters long on one side, and 120 meters long on the other. The building is not yet completed and is being enlarged with the progressive installation of additional turbines and boilers. It is divided into the following:
 - (1) The generator room (sala masinilor), which is 30 meters high, about 120 meters long, and 22 meters wide. It contains the three turbines.
 - (2) The boiler room (sala cazanelor), which is about 45 meters high and about 90 meters long. It contains three boilers, each of which has an area of about 20 by 25 meters and a height of about 30 meters. The boilers are fed by either coal or fuel oil, or, since 1958, by methane as well.
 - (3) The condenser plant, which is located between the generator room and the boiler room. It occupies three stories; part of the bottom floor contains the Serviciul Interne, which generates power for the station's own requirements.
 - (4) The coal bunker room, which adjoins the boiler room. It contains reinforced concrete bunkers and grinding installations.
 - b. Special towers (cicloane) for the screening of coal. The coal is of inferior quality and contains 30 to 40 percent powder. From the towers, the powdered coal is transferred by conveyor belt to a water basin (Lac Artificial Pentru Depunerea Cenusei) located near the railroad terminal of the power station. Recovery from the basin, however, is slow and, by early 1959, the basin was almost full. The management of the plant is also at a loss as to the final disposal of the ash.

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- c. An exhaustor plant (casa ventilatorelor) into which the coal gas is conducted. Each boiler has two large exhausters for transferring the gas into a stack, which is about 120 meters high and has a diameter of 12-13 meters. The exhaustor plant occupies a red brick building 10 meters wide, about 100 meters long, and about 13 meters high.
- d. A building which contains the bus structure and the transformers. One turbine, one boiler, and two exhausters represent one generating unit, which is referred to as "Grup". The 10,000-volt current generated by each unit passes to several buses, from where it is directed to the two transformer stations. One of the stations steps up the current to 35 kv and the other to 110 kv. From the transformer stations, the 35 kv and the 110 kv current are fed into high tension cables for transmission.
- e. The control room (sectia electrica), which is located in a two-story brick building called "Camera de Comanda". The building covers an area of 15 by 30 meters.
- f. A one-story building where the water is purified (statia de epurare chimica) before it is pumped into the boilers.
- g. A store (depozitul de materiale marunte), which occupies a ground-floor structure (no details).
- h. A mechanical workshop (atelier mecanic) for the repair and maintenance of equipment, which is housed in a one-story structure.

The water purification building, the store, and the mechanical workshop, located behind the stack, each cover an area of 25 by 10 meters.

- i. Two water towers of reinforced concrete, each of which has a diameter at the bottom of about 50 meters and at the top of about 20 meters. Each turbine requires 10,000 cubic meters of cooling water per hour. The towers are situated on a hill, so that there is no need for a pumping station to carry the water to the station. The water is taken from the Jiu de Vest River, where two ducts have been constructed to carry the water to the towers. A secondary conduit, consisting of an underground metal pipe with a diameter of 40 centimeters, originates at the Jiu railroad stop. The main duct consists of two square (2 by 2 meters) concrete underground conduits; it originates at a point 2 kilometers from the water towers, where the water level of the river is higher, thus obviating the need for a pumping station. Though only the secondary duct was in operation in early 1959, plans called for the operation of the main one in 1959. From the towers, the water is conducted into a reservoir (bazin de amestec) (no details), and from there to the condensers by means of two underground steel pipes each with a diameter of 2 meters. A third tower is now under construction, and there are plans for a fourth one to be erected.

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- j. A water-collecting basin (bazin de absorbtie), to which the heated water is conducted by means of two square (2 by 2 meters) concrete underground conduits. When the quantity of water at the disposal of the station is sufficient, the dam is opened and the water flows into the Jiu de Vest River through an underground pipe. As a rule, however, there is not enough water available and the water from the collecting basin, therefore, is passed to the water towers through a square (2 by 2 meters) concrete underground conduit. It cools down on the way to the water tower and can be re-employed.
- k. Two concrete underground fuel oil tanks, which are located near the railroad tracks. The fuel oil is transported by rail from the villages of Rovinari and Ticleni in the Oltenia region, about 40 kilometers south of Tirgu-Jiu. The railroad line on which it is carried is called Linia Pacurei. From the tanks the fuel oil passes through the pumping station (statie de pompe) by way of an underground pipe to the boiler room in the main building of the power station. Each tank has a capacity of about 1,000 cubic meters. Erection of a third one was started in 1959.
- l. A concrete, 40 centimeters overhead pipeline through which methane gas is carried to the power station from Rovinari. The pipeline rests on 6-meter-high concrete pylons.
- m. A coal crushing plant (statia concasare), which occupies a building with two wings (one and two stories respectively) and an area of 15 by 20 meters. Coal is transported by rail from the mines in the Jiu River Valley to the unloading station. From there it is taken by two conveyor belts to the coal crushing plant. From the crushing plant the coal is taken to the bunkers by means of two overhead conveyor belts (22.5 meters - aboveground). Each boiler has three bunkers, two for crushed coal and one for coal dust. The coal is ground into dust at the first two bunkers and is then transferred to the third bunker, from where it is fed to the boiler. The railroad line carrying the coal is referred to as Linia Carbunelui.
11. In early 1959, there were two generating units, each with a capacity of 50 mw per hour, in operation at the Paroseni power station. A third unit with the same capacity as the first two, was to be put into operation on 1 March 1959. According to existing plans, the power station at Paroseni is to have a total output of 250 mw per hour. It has not yet been decided, however, whether a fourth generating unit with an output of 100 mw per hour will be added, or two units of 50 mw each.
12. The Paroseni power station supplies electricity to the entire Valea Jiului, to the industrial center in Hunedoara, to the new coal and oil center south of Tirgu-Jiu in the vicinity of Parbatesti and the villages of Rovinari and Ticleni, as well as to Otelul Rosu (the former Ferdinand) and, by way of Otelul Rosu, to Timisoara. The current is conveyed along the following lines:
- a. A 35-kv line to the transformer station at Petrila.
- b. Two 110-kv lines to Hunedoara (from where the current can be distributed to any point in the country).

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- c. A 110-kv line to Barbatesti.
- d. A 110-kv line to Otelul Rosu.
13. The station has several hundred employees (exact number unknown), who work in three shifts: 0700 to 1500, 1500 to 2300, and 2300 to 0700 hours.
14. The following persons were reported:
- a. Martin Barbas, head of the Grupul de Santiere Petrosani from 1953 to 1956, at which time he was removed from his post upon applying for permission to emigrate. He is now director of the production section 50X1-HUM
- b. Ion Bugariu, chief engineer of the Paroseni power station during 1956-1958 and at present temporary acting director of the installation section at the Grupul de Santiere-Parosani. 50X1-HUM
- c. Ion Dinu, secretary of the Party cell at the Grupul de Santiere-Petrosani and deputy of the Lupeni local council 50X1-HUM
- d. Emanuel Emanuel, technical director of TCME since its establishment and an engineer by profession 50X1-HUM
- e. Nicolae Furtuna, director of the personnel section at the Grupul de Santiere-Petrosani since 1955 50X1-HUM
- f. Nicolae Manescu, head of the Grupul de Santiere Petrosani since 1956 50X1-HUM

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- g. Ion Munteanu, chief engineer of the Paroseni thermal power station from 1956 to 1958, at which time he was demoted to assistant chief engineer (reason unknown)

- h. Nisim, fnu, director general of the Power Station Construction and Installation Trust since about 1956 and a construction engineer by profession

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**Legend to Sketch-Layout of the
Paroseni Power Station**

1. Jiul de Vest River.
2. Lupeni-Petrosani railroad line.
3. Lupeni-Petrosani road.
4. Coal unloading station.
5. Railroad Track No. 1 (Linia No. 1).
6. Fuel oil railroad line (Linia Pacurei).
7. Coal railroad line (Linia Carbunelui).
8. Railroad Track No. 6 for heavy equipment (Linia No. 6).
9. Railroad Track No. 7 for heavy equipment (Linia No. 7).
10. Railroad Track No. 8 (Linia No. 8) serving the transformer station.
11. Underground fuel oil line.
12. Coal conveyer belt.
13. Underground lines for conducting water from the water towers to the boiler room.
14. Underground lines for returning water from the boiler room to the water towers.
15. Dam.
16. To the Jiul de Vest River.

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17. Secondary duct from the Jiul de Vest River.
18. Main duct from the Jiul de Vest River.
19. To Jiul de Vest River, 2 kilometers from the power station.
20. To the Jiul railroad station.
21. Coal store.
22. Water purifying station (statie de epurare chimica).
23. Store (magazin de materiale marunte).
24. Mechanical workshop.
25. Generator room (sala masinilor).
26. Condenser plant (corpul degasorilor) and Serviciul Interne.
27. Boiler room (sala cazanelor).
28. Bunker room (corpul bancarelor).
29. Coal screening tower (cicloane).
30. Exhauster plant (casa ventilatoarelor).
31. Second exhauster plant (not yet equipped).
32. Coal gas pipes leading to the stack.
33. Stack.
34. Control room.
35. Bus structure.
36. Transformers.

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37. 35-kv transformer station.
38. 110-kv transformer station.
39. Exit of high tension overhead lines (on metal pylons).
40. Methane pipeline.
41. To Rovinari.
42. Provincial gas works.
43. Fuel oil tanks.
44. Fuel oil tank under construction.
45. Fuel oil pumping station.
46. Coal crushing plant (statie de concasare).
47. Building originally destined as guard room, now used as a refreshment stand.
48. Office building, known as Corpul Anex. It is a three-story structure covering an area of 35 x 15 meters.
49. Water reservoir (basin de absorbtie).
50. Central pumping station.
51. Water towers.
52. Water towers under construction.
53. Power station's central railroad station.
54. To Vulcan railroad station.
55. Basin for coal powder recovery.
56. Offices of the Grupul de Santiere-Petrosani.

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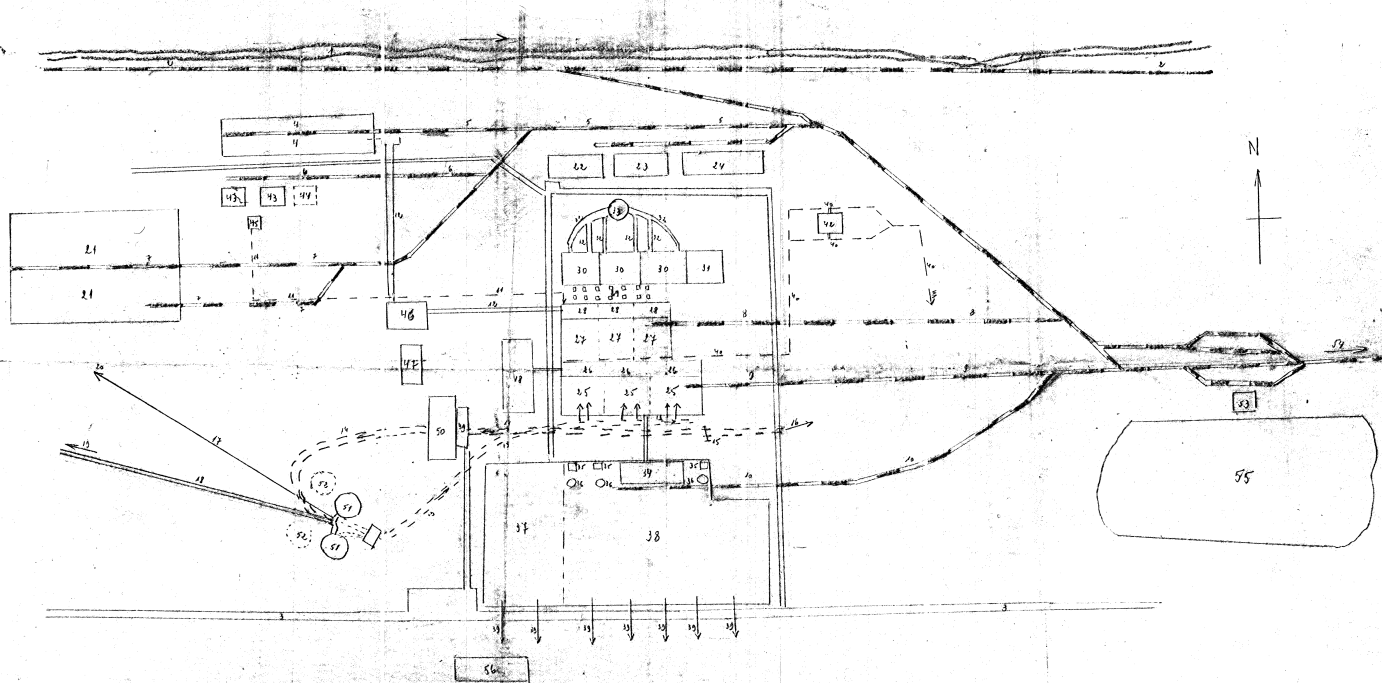
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